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Product datasheet for RC237391

FMO2 (NM_001301347) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FMO2 (NM_001301347) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FMO2
Synonyms:	FMO1B1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC237391 representing NM_001301347 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGAGCCGTATCTCTGAAGATGGCTATCCTTGGGACTCAGTGTTCCACACCCGGTTTCGTTCTATGCTCC GCAATGTACTGCCACGAACAGCTGTAAAATGGATGATAGAACAACAGATGAATCGGTGGTTCAACCATGA AAATTATGGCCTTGAGCCTCAAAACAAATACATTATGAAGGAACCTGTACTAAATGATGATGTCCCAAGT CGTCTACTCTGTGGAGCCATCAAGGTGAAATCTACAGTGAAAGAGCTCACAGAAACTTCTGCCATCTTTG AGGATGGAACAGTGGAGGAGAACATTGATGTCATCATTTTTGCAACAGGATATAGTTTCTCTTTTCCCTT CCTTGAAGATTCACTCGTTAAAGTAGAGAATAATATGGTCTCACTGTATAAATACATATTCCCCGCTCAC CTGGACAAGTCAACCCTCGCGTGCATTGGTCTCATCCAGCCCCTAGGTTCCATTTTCCCAACTGCTGAAC TTCAAGCTCGTTGGGTGACAAGAGTTTTCAAAGGCTTGTGTAGCCTGCCCTCAGAGAGAACTATGATGAT GGACATTATCAAAAGGAATGAAAAAAGAATTGACCTGTTTGGAGAAAGCCAGAGCCAGACGTTGCAGACC AATTATGTTGACTACTTGGACGAGCTCGCCTTAGAGATAGGTGCGAAGCCAGATTTCTGCTCTCTCTTGT TCAAAGATCCTAAACTGGCTGTGAGACTCTATTTCGGACCCTGCAACTCCTATCAGTATCGCCTGGTTGG GCCTGGGCAATGGGAAGGAGCCAGAAATGCCATCTTCACCCAGAAACAAAGAATACTGAAGCCACTCAAG ACTCGGGCCCTGAAGGATTCATCTAATTTCTCAGTTTCTTTTCTGTTGAAAATCCTGGGCCTTCTTGCTG TTGTTGTGGCCTTTTTTTGCCAACTTCAATGGTCC ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

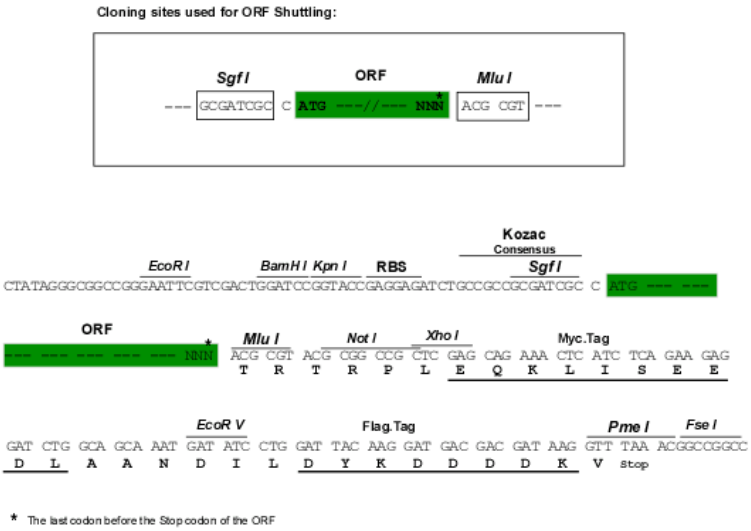
>RC237391 representing NM_001301347
Red=Cloning site Green=Tags(s)

MSRISEDGYPWDSVFHTRFRSMLRNVLPRTAVKWMIEQQMNRWFNHENYGLEPQNKYIMKEPVLNDDVPS
RLLCGAIKVKSTVKELTETSAIFEDGTVEENIDVIIFATGYSFSFPFLEDSLVKVENNMVSLYKYIFPAH
LDKSTLACIGLIQPLGSIFPTAELQARWVTRVFKGLCSLPSERTMMMDIIKRNEKRIDLFGESQSQTLQT
NYVDYLDELALEIGAKPDFCSLLFKDPKLAVRLYFGPCNSYQYRLVGPGQWEGARNAIFTQKQRILKPLK
TRALKDSSNFSVSFLLKILGLLAVVVAFFCQLQWS

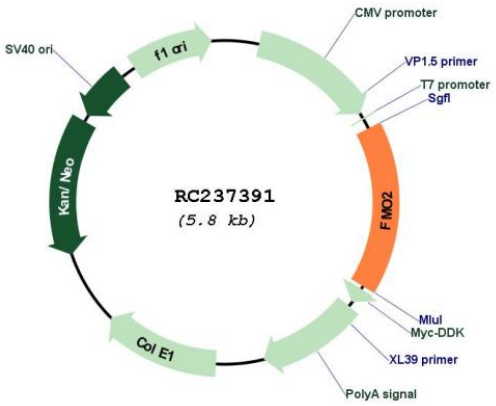
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001301347

ORF Size: 945 bp

OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_001301347.2
RefSeq Size:	5023 bp
RefSeq ORF:	948 bp
Locus ID:	2327
Cytogenetics:	1q24.3
Protein Pathways:	Drug metabolism - cytochrome P450
MW:	36.7 kDa
Gene Summary:	This gene encodes a flavin-containing monooxygenase family member. It is an NADPH-dependent enzyme that catalyzes the N-oxidation of some primary alkylamines through an N-hydroxylamine intermediate. However, some human populations contain an allele (FMO2*2A) with a premature stop codon, resulting in a protein that is C-terminally-truncated, has no catalytic activity, and is likely degraded rapidly. This gene is found in a cluster with other related family members on chromosome 1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2014]